

4. Claims:

- (1) A statistical language model generating device comprising:

readout means for reading out a grammar to be used for recognizing speech to be input in an application program in a grammar method; and

statistical language model generating means for generating a statistical language model to be used for recognizing speech input in said application program by dictation on the basis of said grammar read out by said readout means.

- (2) The statistical language model generating device according to Claim 1, wherein said statistical language model generating means modifies a general statistical language model based on said grammar read out by said readout means for generating said statistical language model.

- (3) The statistical language model generating device according to Claim 1, wherein said statistical language model generating means generates said statistical language model separately from a general statistical language model.

- (4) The statistical language model generating device according to Claim 1, wherein said statistical language model generating means further comprises specific sentence generating means for evolving said grammar read out by said readout means and generating sentence data specific to said application program, and

uses said sentence data generated by said specific sentence generating means for generating said statistical language model.

(5) The statistical language model generating device according to Claim 4, wherein said specific sentence generating means generates said sentence data by making predetermined correction to the result of evolving said grammar.

(6) A speech recognizing device comprising:

natural speech recognizing means for recognizing speech input in an application program by dictation; and

recognition result converting means for converting a recognition result from said natural speech recognizing means into a final recognition result processable by said application program on the basis of a grammar to be used for recognizing said input speech in a grammar method.

(7) The speech recognizing device according to Claim 6, wherein said recognition result converting means comprises

candidate sentence generating means for evolving said grammar to generate candidate sentences that are candidates for said final recognition result; and

matching means for selecting a candidate sentence as said final recognition result among the candidate sentences by matching said candidate sentences generated by said candidate sentence generating means against the recognition result by said natural speech recognizing means.

(8) The speech recognizing device according to Claim 7, wherein said matching means selects as said final recognition result a candidate sentence with the highest degree of agreement with the recognition result by said natural speech recognizing means from among said candidate sentences generated by said candidate sentence generating means.

- (9) The speech recognizing device according to Claim 6, further comprising statistical language model generating means for generating a statistical language model to be used for recognizing speech inputted to an application program by dictation on the basis of a grammar to be used for recognizing speech inputted to the application program in grammar method;

wherein said natural speech recognizing means recognizes said inputted speech by dictation using said statistical language model generated by said statistical language model generating means.

- (10) The speech recognizing device according to Claim 9, wherein said statistical language model generating means modifies a general statistical language model based on said grammar in order to generate said statistical language model.

- (11) The speech recognizing device according to Claim 9, wherein said statistical language model generating means generates said statistical language model separately from a general statistical language model; and

said natural speech recognizing means recognizes said inputted speech by dictation using said general statistical language model and said statistical language model generated by said statistical language model generating means.

- (12) A statistical language model generating method, comprising the steps of:

reading out a grammar to be used for recognizing speech to be input in an application program from a grammar storing unit;

generating a statistical language model to be used for recognizing speech to be input in said application program on the basis of said read out grammar; and

storing said generated statistical language model into a statistical language model storing unit that can be referred to by said application program.

- (13) The statistical language model generating method according to Claim 12, wherein the step of generating said statistical language model further comprises the steps of

evolving said read-out grammar and generating sentence data specific to said application program; and

generating said statistical language model based on said sentence data generated.

- (14) The statistical language model generating method according to Claim 13, further comprising the steps of

reading out correction information from a correction information storing unit that is used for making predetermined correction to said sentence data generated at the step of generating said sentence data;

determining whether correction based on said correction information is required for said sentence data; and

generating new sentence data by making correction based on said correction information to said sentence data that has been determined to require correction based on said correction information and adding the new sentence data to said sentence data for use at the step of generating said statistical language model.

- (15) A speech recognizing method comprising the steps of:

reading out a statistical language model to be used for recognizing speech to be input in an application program by dictation from statistical language model storing means;

recognizing speech input in said application program by dictation with said readout statistical language model;

reading out a grammar to be used for recognizing said input speech in a grammar method from a grammar storing unit; and

converting a recognition result by said dictation into a final recognition result processable by said application program on the basis of said readout grammar.

- (16) The speech recognizing method according to Claim 15, wherein the step of converting said recognition result further comprises the steps of

evolving said read-out grammar to generate candidate sentences that are candidates for said final recognition result; and

selecting a candidate sentence as said final recognition result among the candidate sentences by matching said generated candidate sentences against the recognition result by said dictation.

- (17) The speech recognizing method according to Claim 16, said step of selection selects as said final recognition result a candidate sentence with the highest degree of agreement with the recognition result by said dictation from among said candidate sentences generated.

- (18) The speech recognizing method according to Claim 15, further comprising the steps of

reading out a grammar to be used for recognizing speech inputted to an application program in grammar method from a grammar storing unit;

generating a statistical language model to be used for recognizing speech inputted to said application program by

dictation on the basis of said read-out grammar;

storing said statistical language model generated in statistical language model storing means; and

reading out said statistical language model from said statistical language model storing means,

wherein said step of recognition by dictation recognizes said inputted speech by dictation using said statistical language model read out.

- (19) A program product for causing a computer to implement the operations of:

reading out a grammar to be used for recognizing speech to be input in an application program in a grammar method; and

generating a statistical language model to be used for recognizing speech to be input in said application program by dictation on the basis of said readout grammar.

- (20) The program product according to Claim 19, further implementing, as the operation of generating said statistical language model, the operations of

evolving said read-out grammar to generate sentence data specific to said application program; and

generating said statistical language model on the basis of said sentence data generated.

- (21) A program product for causing a computer to implement the operations of:

recognition speech input in an application program by dictation; and

converting a recognition result by said dictation into a final recognition result processable by said application program on the basis of a grammar to be used for recognizing said input speech in a grammar method.

- (22) The program product according to Claim 21, further implementing, as the operation of converting said recognition result, the operations of

evolving said grammar read out to generate candidate sentences that are candidates for said final recognition result; and

selecting a candidate sentence as said final recognition result among the candidate sentences by matching said candidate sentences generated against the recognition result by said dictation.